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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,584	06/26/2001	Lorin Evan Ullmann	AUS920010284-US1	2109

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EXAMINER	
MARTIN, NICHOLAS A	

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/891,584	ULLMANN ET AL.	
	Examiner	Art Unit	
	Nicholas Martin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 10-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 10-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/3/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-7 and 10-25 are presented for examination. Claims 8-9 have been cancelled. Claims 22-25 have been added.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

3. Applicants arguments filed on 01/14/2005 have been fully considered but they are not persuasive.

4. As per remarks, Applicants' argued that (1) Kirk does not teach a method or system having a plurality of computing locations.

5. As to point (1), Kirk discloses a system having a plurality of computing locations (Col. 1, lines 13-24; "...(GPS) receivers: code-based and carrier phase based...Code-based receivers calculate position based upon the time interval that it takes for signals to travel from at least four satellites to the receiver...").

6. As per remarks, Applicants' argued that (2) Kirk does not teach means or steps to detect an event trigger which comprises a message level error indicative of an error condition at a computing location.

7. As to point (2), Kirk discloses means to detect an even trigger which comprises an error indicative of an error condition at a computing location (Col. 1, lines 40-48; "...a

radio link between the base reference station and the rover is critical to the computation of centimeter-level positions at the rover. In some cases, radio outages may cause the loss of RTK positioning. Therefore, it is desirable to detect events such as loss of radio..."). Furthermore, Kirk teaches the trigger as message level (Col. 16, lines 36-41; "...when the radio link from the primary reference station to the rover becomes unavailable, a message is preferable sent from the rover to the primary reference station to start GPS recording.").

8. As per remarks, Applicants' argued that (3) Kirk does not teach means or steps to activate logging in at least one computing location in response to trigger event detection.

9. As to point (3), Kirk discloses means or steps to activate logging in at least one computing location in response to trigger event detection (Col. 3, lines 10-15; "...automatic event detection and processing is described. Events may be detected with reference to satellite data or by sensors...used to trigger data logging parameter modifications..." and Col. 6, lines 34-51; "...a set of logging parameters (e.g., modified logging parameters) may represent the data logging configuration subsequent to the predetermined event.").

10. As per remarks, Applicants' argued that (4) Kirk does not teach means or steps to log system activities until detection of a stop event.

11. As to point (4), Kirk discloses means or steps to log system activities until detection of a stop event (Col. 7, lines 51-59; "...a determination is made as to whether or not the time has come to record the satellite data to the temporary buffer based upon the desired logging rate. If the current time falls upon a time corresponding to the desired logging rate, it is determined whether the end of the end of the temporary buffer has been reached. If space in the temporary buffer has not been exhausted, the satellite data is logged to the temporary buffer" and Col. 17, lines 64-67; Col. 18, lines 1-15; "...the rover sends a message that instructs the reference stations to save the contents of the data buffer and to start GPS data recording...the rover sends another message to the primary reference station to stop GPS data recording.").

12. As per remarks, Applicants' argued that (5) Duggan and/or Kirk do not teach or suggest the logging of affected subsystems pursuant to detecting of a message level error indicative of an error at a computing location of a distributed computing system as recited in claims 6-7 and 17-19.

13. As to point (5), Duggan discloses logging of affected subsystems pursuant to detecting of an error (Col. 8, lines 46-62 "The Event Log option records an entry for each executed command on each client connection...the Event Log specifies the session number, the date and time of the command execution, the elapsed time for execution of the command, and the elapsed time for the session...consists of a port number, a network address, and a directory path for storage of log files"; Col. 14, lines 48-63 "Commands of the command module are of two types – interrupt soliciting

commands..."; Col. 24, lines 10-27). Kirk teaches detecting a message level error indicative of an error at a computing location (Col. 1, lines 40-48; "...a radio link between the base reference station and the rover is critical to the computation of centimeter-level positions at the rover. In some cases, radio outages may cause the loss of RTK positioning. Therefore, it is desirable to detect events such as loss of radio..."; Col. 16, lines 36-41 "...when the radio link from the primary reference station to the rover becomes unavailable, a message is preferable sent from the rover to the primary reference station to start GPS recording.").

14. As per remarks, Applicants' argued that (6) Duggan and/or Kirk does not identify subsystems which are affected by detected error events.

15. As per point (6), Duggan discloses the implementation of identifying subsystems which are affected by detected error events (Col. 8, lines 30-62 "...specifies the session number, the date and time of the command execution...consists of a port number, a network address, and a directory path for storage of log files"; Col. 14, lines 48-63 "Commands of the command module are of two types – interrupt soliciting commands..."; Col. 24, lines 10-27 "...a username and password is assigned to the new session, and one of the available client connections is allocated to the session...").

16. As per remarks, Applicants' argued that (7) Duggan and/or Kirk does not commence logging at identified affected subsystems.

17. As per point (7), Duggan discloses the implementation of logging at identified affected subsystems (Col. 8, lines 46-62 "The Event Log option records an entry for each executed command on each client connection. This is the most detailed form of logging..."; Col. 14, lines 48-63; "Commands of the command module are of two types – interrupt soliciting commands...").

18. As per remarks, Applicants' argued that (8) Duggan and/or Kirk does not access predefined temporary logging information for use in logging which is commenced upon event detection as recited in claims 11.

19. As per point (8), Kirk discloses the implementation of obtaining predefined temporary logging information for use in logging which is commenced upon event detection (Col. 6, lines 40-48). Furthermore, Duggan teaches accessing at least one configuration storage location to access information for said subsystem (Col. 8, lines 30-67 "An environment consists of a port number, a network address, and a directory path for storage of log files..."; Col. 15, lines 40-49 "...passes the user name and password to the web application...verifies the username and password from a database of valid users).

20. As per remarks, Applicants' argued that (9) Duggan and/or Kirk do not teach mapping to determine the subsystem at which a trigger event occurred as recited in claims 17-19.

21. As to point (9), Duggan discloses the limitation of mapping to determine the subsystem at which a trigger event occurred (Col. 8, lines 30-62; "The Event Log option records an entry for each executed command on each client connection...the Event Log specifies the session number, the date and time of the command execution, the elapsed time for execution of the command, and the elapsed time for the session...consists of a port number, a network address, and a directory path for storage of log files" and Col. 14, lines 48-63; "Commands of the command module are of two types – interrupt soliciting commands...").

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

22. Claims 1-5, 10, 12-16 and 20-25 are rejected under U.S.C. 102(b) as being anticipated by Kirk et al. (hereinafter Kirk), US 5,916,300.

23. As per claim 1, Kirk teaches a method for providing variable frequency logging of activities in a distributed computing system comprising a plurality of computing locations (Col. 1, lines 13-24) comprising the steps of:

detecting an event trigger (Col. 3, lines 10-15) comprising a message level error indicative of an error at a computing location (Col. 1, lines 40-48; Col. 16, lines 36-41);

responsive to the event trigger, activating a temporary logging function for logging system activities for at least one computing location (Col. 4, lines 12-16; Col. 6, lines 34-51);

logging system activities (Col. 6, lines 34-38); and

terminating logging of system activities based on detection of a stop event (Col. 7, lines 51-59; Col. 17, lines 64-67; Col. 18, lines 1-15).

24. As per claim 2, Kirk teaches the method of claim 1 wherein said activating further comprises implementing filtering of said logging of system activities (Col. 4, lines 16-23; Col. 11, lines 58-64; Col. 12, lines 6-9).

25. As per claim 3, Kirk teaches the method of claim 2 further comprising analyzing filtering of system activities to determine corrective action (Col. 4, lines 16-23; Col. 11, lines 58-64; Col. 12, lines 6-16).

26. As per claim 4, Kirk teaches the method of claim 1 wherein said activating comprises altering the amount of logging done for system activities (Col. 4, lines 37-45).

27. As per claim 5, Kirk teaches the method of claim 4 wherein said altering comprises adjusting the frequency at which logging is done at an affected location (Col. 4, lines 37-45; Col. 6, lines 49-51; Col. 7, lines 8-10).

28. As per claim 10, Kirk teaches the method of claim 1 further comprising the step of accessing at least one configuration database for predefined temporary logging information (Col. 6, lines 40-48).

29. As per claim 12, Kirk teaches an apparatus for providing variable frequency logging of activities in a distributed computing system comprising a plurality of computing locations (Col. 1, lines 13-24) comprising:

an event trigger detection component for detecting at least one predefined trigger event comprising a message level error indicative of an error at a computing location (Col. 1, lines 40-48; Col. 16, lines 36-41);

a plurality of logging components for logging system activities at a system location (Col. 4, lines 7-11, Col. 6, lines 16-19, lines 34-38; Col. 20, lines 37-50);

a logging activator responsive to input from the event trigger detection component, for activating at least one of said plurality of logging components to log system activities (Col. 3, lines 10-15, lines 52-59; Col. 4, lines 30-32); and

a stop event detection component for terminating logging of system activities based on detection of a stop event (Col.7, lines 51-59; Col. 17, lines 64-67; Col. 18, lines 1-15).

30. As per claim 13, Kirk teaches the apparatus of claim 12 further comprising at least one filter for filtering logged system activities for determining corrective action (Col. 4, lines 16-23; Col. 11, lines 58-64; Col. 12, lines 6-16).

31. As per claim 14, Kirk teaches an apparatus of claim 12 wherein said stop event detection component comprises a timer for terminating logging after a preset time period (Col. 17, lines 55-67; Col. 18, lines 1-15).

32. As per claim 15, Kirk teaches an apparatus of claim 12 wherein said stop event detection component comprises a component for receiving user input of stop notification (Col. 4, lines 30-37; Col. 7, lines 51-59; Col. 17, lines 55-67; Col. 18, lines 1-15).

33. As per claim 16, Kirk teaches an apparatus of claim 12 further comprising a mapping component for determining the location from which the trigger event emanated (Col. 3, lines 34-38).

34. As per claim 20, Kirk teaches an apparatus of claim 12 wherein said logging activator comprises means to alter the frequency at which the logging of system activities is done (Col. 4, lines 37-45; Col. 6, lines 49-51; Col. 7, lines 8-10).

35. As per claim 21, Kirk teaches a program storage device readable by machine tangibly embodying a program of instructions executable by the machine to perform a method for providing variable frequency logging of activities in a distributed computing system comprising a plurality of computing locations (Col. 1, lines 13-24), said method comprising the steps of:

detecting an event trigger (Col. 3, lines 10-15) comprising a message level error indicative of an error at a computing location (Col. 1, lines 40-48; Col. 16, lines 36-41);

responsive to the event trigger, activating a temporary logging function for logging system activities for at least one computing location (Col. 4, lines 12-16; Col. 6, lines 34-51);

logging system activities (Col. 6, lines 34-38); and

terminating logging of system activities based on detection of a stop event (Col. 7, lines 51-59; Col. 17, lines 64-67; Col. 18, lines 1-15).

36. As per claim 22, Kirk teaches the method of claim 4 wherein said altering comprises gradually adjusting said logging (Col. 4, lines 37-45).

37. As per claim 23, Kirk teaches the method of claim 1 wherein said activating comprises dynamically setting a logging and tracing configuration for the distributed computing system based on said detected event (Col. 1, lines 25-48).

38. As per claim 24, Kirk teaches the method of claim 23 wherein said activating further comprises implementing filtering of said logging of system activities to determine corrective action (Col. 4, lines 16-23; Col. 11, lines 58-64; Col. 12, lines 6-16).

39. As per claim 25, Kirk teaches the apparatus of claim 12, wherein said logging activator comprises means for dynamically setting a logging and tracing configuration for the distributed computing system based on said detected event (Col. 1, lines 25-45).

Claim Rejections - 35 USC § 103

40. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

41. Claims 6-7, 11 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk et al. (hereinafter Kirk) US 5,916,300, in view of Duggan et al. (hereinafter Duggan) US 6,002,871.

42. As per claim 6, Kirk teaches the method of claim 1 further comprising determining at least one subsystem affected by the event (Col. 3, liens 34-38).

43. Kirk does not teach the method wherein said activating comprises starting logging at an affected subsystem.

44. Duggan teaches a method wherein said activating comprises starting logging at an affected subsystem (Col. 8, lines 30-62; Col. 24, lines 10-27).

45. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kirk and Duggan because they both deal with logging of activities in a distributed computing system. Furthermore, the teaching of Duggan wherein said activating comprises starting logging at an affected subsystem would improve Kirk's logging system by increasing detail in reference to each logging event and subsystem within the network in order to understand where/when errors occur then to implement the corrective action.

46. As per claim 7, Kirk teaches the method of claim 6 wherein said determining comprises tracing from a location at which said event was detected to identify at least one subsystem affected by said event (Col. 1, lines 25-48; Col. 3, lines 34-38).

47. Kirk does not teach the method wherein starting logging at said at least one affected subsystem.

48. Duggan teaches a method wherein starting logging at said at least one affected subsystem (Col. 8, lines 30-62; Col. 24, lines 10-27).

49. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kirk and Duggan because they both deal with logging of activities in a distributed computing system. Furthermore, the teaching of Duggan wherein starting logging at said at least one affected subsystem would improve

Kirk's logging system by increasing detail in reference to each logging event and subsystem within the network in order to understand where/when errors occur then to implement the corrective action.

50. As per claim 11, Kirk does not explicitly teach the method of claim 7 further comprising the step of accessing at least one configuration database to obtain predefined temporary logging information for said subsystem.

51. Kirk teaches a method of claim 7 comprising the step of obtaining predefined temporary logging information (Col. 6, lines 40-48).

52. Duggan teaches the method of claim 7 further comprising the step of accessing at least one configuration database to obtain predefined temporary logging information for said subsystem (Col. 15, lines 40-49).

53. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kirk and Duggan because they both deal with logging of activities in a distributed computing system and accessing predetermined logging information. Furthermore, the teaching of Duggan wherein accessing at least one configuration database to obtain predefined temporary logging information would improve functionality for Kirk's logging system by allocating centralized locations for standard logging information to be accessed.

54. As per claim 17, Kirk does not explicitly teach the method of claim 16 wherein said mapping component is further adapted to determine the subsystem at which the trigger event occurred.

55. Duggan teaches an apparatus of a mapping component adapted to determine the subsystem at which the trigger event occurred (Col. 8, lines 30-62).

56. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kirk and Duggan because they both deal with logging of activities in a distributed computing system based on a triggered event. Furthermore, the teaching of Duggan wherein a mapping component is further adapted to determine the subsystem at which the trigger event occurred would improve functionality for Kirk's logging system by identifying which systems were effected by the event and to act accordingly by adjusting logging activities.

57. Claim 18 does not teach or define any new limitations above claim 17 and therefore NS ~~are~~ is rejected for similar reasons.

58. As per claim 19, Kirk does not explicitly teach the apparatus of claim 17 wherein said logging activator activates logging at each of said at least one additional subsystem.

59. Duggan teaches an apparatus wherein said logging activator activates logging at each of said at least one additional subsystem (Col. 8, lines 30-62; Col. 24, lines 10-27).

60. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Kirk and Duggan because they both deal with logging of activities in a distributed computing system. Furthermore, the teaching of Duggan wherein a logging activator activates logging at each of said at least one additionally subsystem would improve Kirk's logging system by increasing the ease as to which the logging activities and filtering are adjusted for a computing system.

Response to Amendment

61. Examiner withdraws objections to the drawings, which appear to be in conformance with MPEP § 608.02(d).

62. Examiner acknowledges amendments to the specification, which now appears to be in conformance with MPEP § 608.01(g). Objection has been withdrawn.

63. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Martin whose telephone number is (571) 272-3970. The examiner can normally be reached on Monday - Friday 8:30 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3970.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nicholas Martin
Examiner
Art Unit 2154
April 19, 2005